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EXAMINER
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AMINI, JAVID A

ART UNIT	PAPER NUMBER
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2628

DATE MAILED: 09/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/944,598

Applicant(s)

SATO ET AL.

Examiner

Javid A. Amini

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6-8 and 17-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/4/2001.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Response to Arguments***

Applicant's arguments with respect to claims 6-8, and 17-26 have been considered but are moot in view of the new ground(s) of rejection.

***Specification***

The disclosure is objected to because of the following informalities: the disclosure on page 1, line 16 refers to "fig. 31" and the specification does not contain the figure 31.

Appropriate correction is required.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 6-8, and 17-26 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. It is noted that the claimed invention claim: A system i.e. a converter, converts an image data into an output image data, e.g. a real image into a digital image. The output image representing the image data using a multidimensional lookup table (MLUT) i.e. a lookup table with more than one dimension can be referred as a multidimensional lookup table. The system produces identification when it compresses the MLUT. *It is well known in the art that in image processing, the lookup tables link index numbers to output values. One common LUT, called the colormap, is used to determine the colors and intensity values with which a particular image will be displayed.* The function of the identifier identifies a decompression method of the compressed MLUT, which the claimed invention referred as "a restoring method".

It is noted that the claimed invention does not recite practical application that either produces physical transformation or tangible useful result.

The rejection above applies to the rejection of claims 7-8 and 17-26.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 6-8 and 17-26 rejected under 35 U.S.C. 103(a) as being unpatentable over Bhattacharjya, US Patent number 5,809,213.**

1. Claim 6.

A lookup table which is composed of color characteristic data which are indicating the relationship between supplied image data and output image data (col. 5, lines 43-50, a lookup table is generated from "augmented sample points" which correspond to "color characteristic data") which are determined to be impossible to be interpolated when a process for converting image data is performed (fig. 2a, col. 10, lines 40-63; points are sampled because many points are impossible to interpolate); similarly some points are non-linearly interpolated because they are impossible to linearly interpolate; and image data converting means for converting supplied image data by using said lookup table composed of the characteristic points into output image data (col. 5, lines 43-50; a linear interpolation function is used to convert the table value to a

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calibration values for a color reproduction system). Bhattacharjya discloses a transformed signals R', G', B' are subsequently provided to a three-dimensional lookup table formed in conjunction with figs. 2-6 and the final output signals R, G, B, are provided to printer 128, see col. 15, lines 34-38.

Bhattacharjya does not disclose a multidimensional lookup table is a compressed multidimensional lookup table formed by compressing the multidimensional lookup table and an identifier for identifying a restoring method; nor does Bhattacharjya disclose restoring means provided which restores the compressed multidimensional lookup table into the multidimensional lookup table.

However, Official notice has been taken of the fact that compressing and restoring a color table is well known in the art (see MPEP 2144.03). It would have been obvious to one skilled in the art to modify Bhattacharjya to compress and restore a color table in order to conserve space in memory also may add an identifier for identifying compressing/decompressing method into the LUT.

2. As to claims 7, 8, 17 see rejection of claim 6.
3. As to claims 18-19, claims 18-19 contain color characteristics of a digital camera. The prior arts do not disclose a digital camera. However, it would have been obvious to a person skill in the art to modify Bhattacharjya to be able to identify the target device, e.g., PC, PDA, printer and etc.
4. As to claims 20-21, claim 20 claims the step of the color characteristic data is synthesized with image data that is obvious to a person skill in the art. Claim 21 claims the identifier identifies a repairing method, Bhattacharjya at col. 5 lines 66-67 teaches the claim limitation.

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5. Claims 22-26

See rejection of claim 6 and 7, which applies to claims 22. Applicant in claims 23-26 claims that color intensity data is included of Red, Green and Blue color data. It would have been obvious to a person skill in the art to recognize the color intensity includes RGB. Bhattacharjya illustrates the claim limitations in fig. 6.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Javid A. Amini whose telephone number is 571-272-7654. The examiner can normally be reached on 8-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on 571-272-7794. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Javid A Amini  
Examiner  
Art Unit 2628

J. Amini



**KEE M. TUNG**  
**SUPERVISORY PATENT EXAMINER**